ATA-171/172/171P (ATA-S1/S2/P) User's Guide

V.1.5

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1 Introduction

This user's manual is for 1-port FXS VoIP terminal adapter (ATA). This user's manual will explain the IVR instruction, web configuration, and command line configuration for the ATA. Before using the ATA, some setup processes are required to make the ATA work properly. Please refer to the Setup Menu for further information.

1.1 Hardware Overview

The ATA has the following interfaces for Networking, telephone interface, LED indication, and power connector.

1.1.1 Two RJ-45 Networking interface, these two interfaces support 10/100Mps Fast Ethernet. you can connect one RJ-45 Fast Ethernet port to the ADSL or Switch, and connect the other one to your computer.

1.1.2 One RJ-11 Type analog telephone jack interfaces. You can connect one analog telephone to the terminal adapter.

1.1.3 LED Indication: There are three LED indicators in the ATA to show the Power, Register, and Off-Hook indication.

1.2 Software Overview

Network Protocol	**Tone**
• SIP v1 (RFC2543), v2 (RFC3261) • IP/TCP/UDP/RTP/RTCP • IP/ICMP/ARP/RARP/SNTP • TFTP Client/DHCP Client/ PPPoE Client • Telnet/HTTP Server • DNS Client • NAT/DHCP Server	• Ring Tone • Ring Back Tone • Dial Tone • Busy Tone • Programming Tone
	Phone Function
Codec	• Volume Adjustment • Speed dial key • Phone book • Flash
• G.711: 64k bit/s (PCM) • G.726: 16k / 24k / 32k / 40k bit/s (ADPCM) • G.729A: 8k bit/s (CS-ACELP) • G.729B: adds VAD & CNG to G.729	**IP Assignment**
	• Static IP • DHCP • PPPoE
Voice Quality	**Security**
• VAD: Voice activity detection • CNG: Comfortable noise generator • LEC: Line echo canceller • Packet Loss Compensation • Adaptive Jitter Buffer	• HTTP 1.1 basic/digest authentication for Web setup • MD5 for SIP authentication (RFC2069/ RFC 2617)
	QoS
Call Function	• ToS field
• Call Hold • Call Waiting • Call Forward • Caller ID • 3-way conference	**NAT Traversal**
	• STUN
	Configuration
DTMF Function	• Web Browser • Console/Telnet • IVR/Keypad
• In-Band DTMF • Out-of Band DTMF • SIP Info	**Firmware Upgrade**
SIP Server	
• Registrar Server (three SIP account) • Outbound Proxy	• TFTP • Console • HTTP

2 Keypad Interface for The ATA

You can use the PSTN phone keypad to operate the ATA. Please follow the instruction to configure your terminal adapter.

Group	IVR Action	IVR Menu Choice	Parameter(s)	Notes:
Funcrion	Dial out from PSTN Line	**0∗**	None	Press O# can pass relay to PSTN Line, user can dial out from PSTN Line. (For 171P only)
Function	Unlock keypad setting	**#190#**	None	After you unlock keypad setting, then you may configure the ATA.
Function	Reboot	**#195#**	None	After you hear "Option Successful," hang-up. The system will reboot automatically.
Function	Factory Reset	**#198#**	None	System will automatically Reboot. WARNING: ALL "User-Changeable" NONDEFAULT SETTINGS WILL BE LOST! This will include network and service provider data.
Info	Check WAN IP Address	**#126#**	None	IVR will announce the current WAN IP address of the ATA
Info	Check LAN IP Address	**#120#**	None	IVR will announce the current LAN IP address of the ATA
Info	Check IP Type	**#121#**	None	IVR will announce if DHCP in enabled or disabled.
Info	Check the Phone Number	**#122#**	None	IVR will announce current in use VoIP number
Info	Check Network Mask	**#123#**	None	IVR will announce the current network mask of the ATA.
Info	Check Gateway IP Address	**#124#**	None	IVR will announce the current gateway IP address of the ATA.
Info	Check Primary DNS Server Setting	**#125#**	None	IVR will announce the current setting in the Primary DNS field.
Info	Check Firmware Version	**#128#**	None	IVR will announce the version of the firmware running on the ATA.
Setting	Set DHCP client	**#111#**	None	The system will change to DHCP Client type
Setting	Set Static IP Address	**#112xxx*xxx*xxx*xxx#**	Enter IP address using numbers on the telephone keypad. Use the * (star) key when entering a decimal point.	DHCP will be disabled and system will change to the Static IP type.
Setting	Set Network Mask	**#113xxx*xxx*xxx*xxx#**	Enter value-using numbers on the telephone keypad. Use the * (star) key when entering a decimal point.	Must set Static IP first.
Setting	Set Gateway IP Address	**#114xxx*xxx*xxx*xxx#**	Enter IP address using numbers on the telephone keypad. Use the * (star) key when entering a decimal point.	Must set Static IP first.
Setting	Set Primary DNS Server	**#115xxx*xxx*xxx*xxx#**	Enter IP address using numbers on the telephone keypad. Use the * (star) key when entering a decimal point.	Must set Static IP first.
Setting	Set Codec	**#130+[1-8]#**	1:G.711 u-Law, 2: G.711 a-Law, 4: G.729a, 5: G.726 16K, 6: G.726 24K, 7: G.726 32K, 8: G.726 40K,	You can set the codec you want to the first priority.
Setting	Set Handset Gain	**#131+[00~15]#**	Handset Gain from 0~15	You can set the Handset gain to proper value, default is 6
Setting	Set Handset Volume	**#132+[00~12]#**	Handset Volume from 0~12	You can set the Handset volume to proper value, default is 10

3 Setup the ATA by Web Browser

The ATA provides a built-in web server. You can use Web browser to configure the ATA. First please input the IP address in the Web page. In the end of IP address, please add the port number ":9999". Ex: http://192.168.1.100:9999

3.1 Login.

3.1.1 Please input the username and password into the blank field. The default setting is:

1. For Administrator, the username is: root; and the password is: null. If you use the account login, you can configure all the setting.
2. For normal user, the username is: user; and the password is: test. If you use the account login, but you cannot configure the SIP setting.
3. WAN port IP address is DHCP mode, please use #126# to hear WAN port get IP address.

3.1.2 Click the "Login" button will move into the ATA web based management information page.

3.1.3 If you change the setting in the Web Management interface, please do remember to click the "Submit" button in that page. After you finished the change of the setting, click the "Save" function in the left side, and click the Save Button. When you finished the setting, please click the Reboot function in the left side, and click the Reboot button in that page. After the system restart, all the setting can work properly.

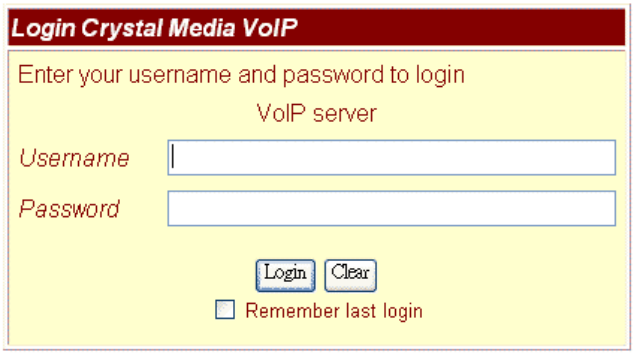

Figure 1. Login

3.2 System Information for the ATA.

3.2.1 When you login the web page, you can see the ATA current system information like firmware version, company… etc in this page.

3.2.2 Also you can see the function lists in the left side. You can use mouse to click the function you want to set up.

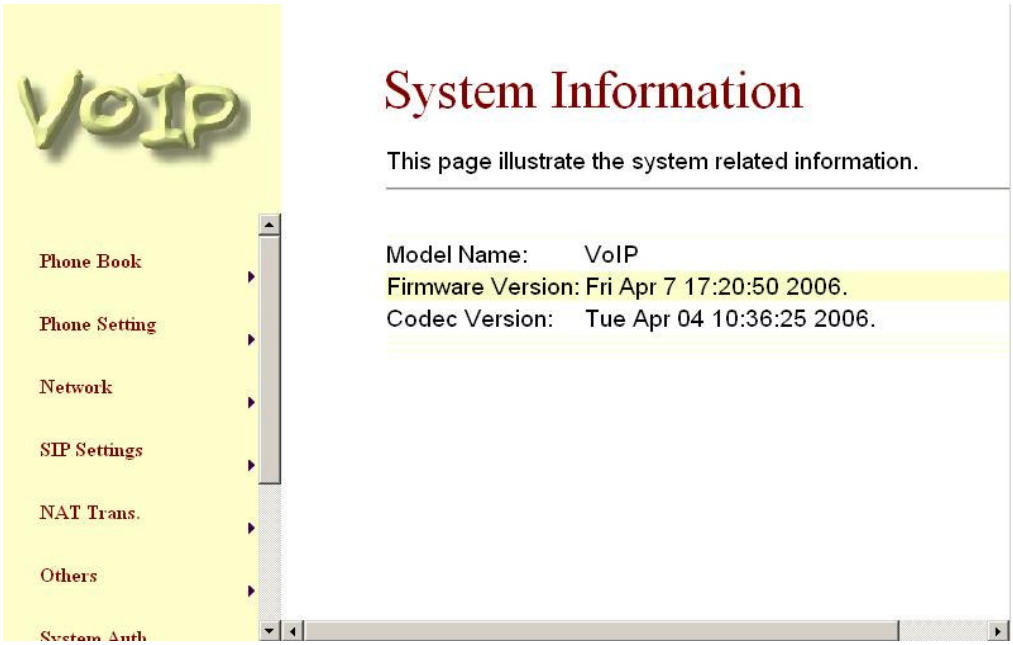

Figure 2. System Information

3.3 Phone Book

3.3.1 In Phone Book contains Speed Dial Settings. You can setup the Speed Dial number. If you want to use Speed Dial you just dial the speed dial number (from 0~9) then press "#".

3.3.2 In Speed Dial setting function you can add/delete Speed Dial number. You can input maximum 10 entries speed dial list.

-1- If you need to add a phone number into the Speed Dial list, you need to input the position, the name, and the phone number (by URL type). When you finished a new phone list, just click the "Add Phone" button.

-2- If you want to delete a phone number, you can select the phone number you want to delete then click "Delete Selected" button.

-3- If you want to delete all phone numbers, you can click "Delete All" button.

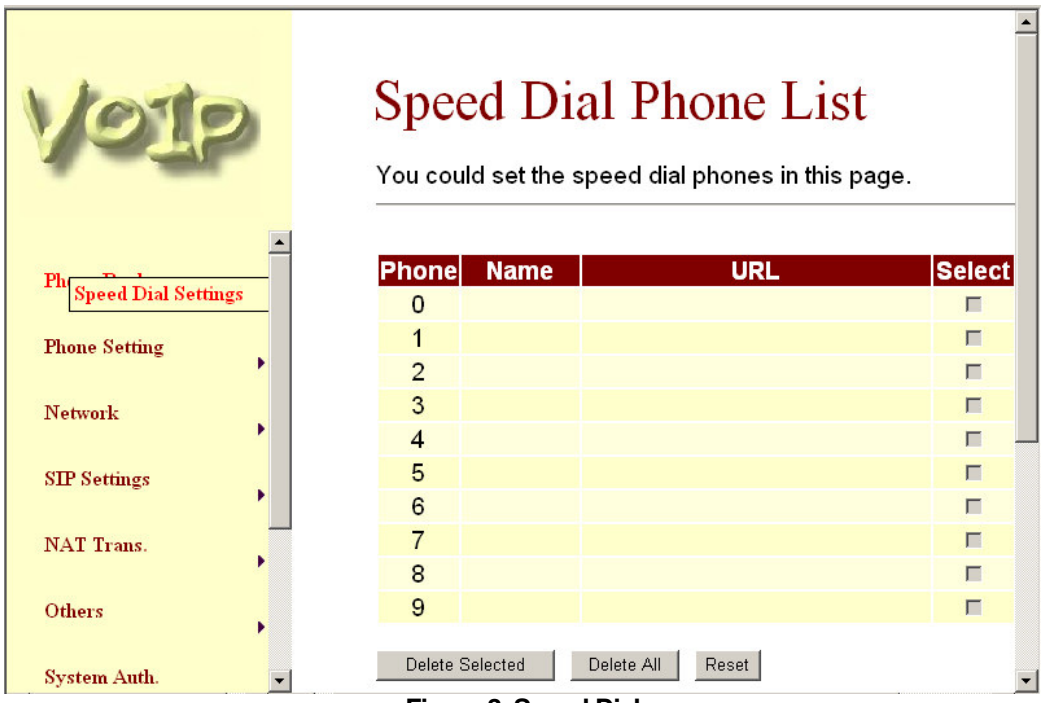

Figure 3. Speed Dial

3.4 Phone Setting

3.4.1 In Phone Setting contains Call Forward, SNTP Settings, Volume Settings, Block Setting, Caller ID, Auto Dial Setting, Flash Time Setting, Call Waiting, and T.38(FAX) Setting functions.

3.4.2 Call Forward function: you can setup the phone number you want to forward in this page. There are three type of Forward mode. You can choose All Forward, Busy Forward, and No Answer Forward by click the icon. You can also select forward path to forward incomig call to IP or PSTN side.

-1- All Forward: All incoming call will forward to the number you choosed. You can input the name(description) and the phone number in URL field. If you select this function, then all the incoming call will direct forward to the speed dial number you choose.

-2- Busy Forward: If you are on the phone, the new incoming call will forward to the number you choosed. You can input the name(description) and the phone number in URL field.

-3- No Answer Forward: : If you can not answer the phone, the incoming call will forward to the number you choosed. You can input the name(description) and the phone number in URL field. Also you have to set the Time Out time for system to start to forward the call to the number you choosed.

-4- When you finished the setting, please click the Submit button.

-5- If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

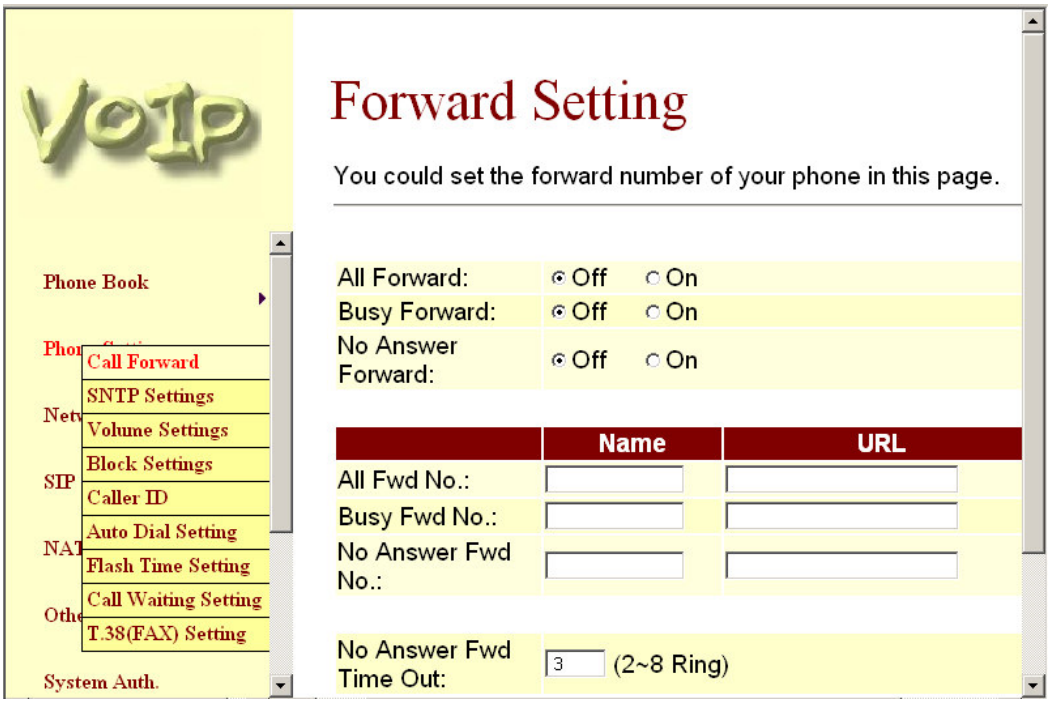

Figure 4. Forward Setting

3.4.3 SNTP Setting function: you can setup the primary and second SNTP Server IP Address, to get the date/time information. Also you can base on your location to set the Time Zone, and how long need to synchronize again. When you finished the setting, please click the Submit button.

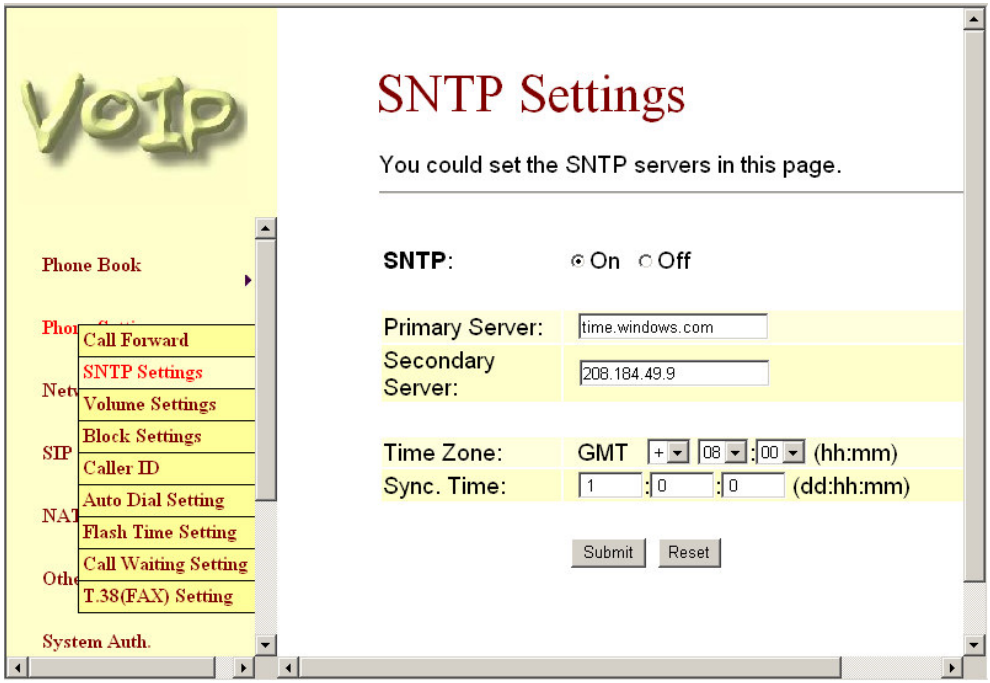

Figure 5. SNTP Setting

3.4.4 Volume Setting function: you can setup the Handset Volume, Ringer Volume, and the Handset Gain. When you finished the setting, please click the Submit button.

-1- Handset Volume is to set the volume for you can hear from the handset.
-2- Ringer Volume is to set the ringer volume for you can hear.
-3- PSTN-Out Volume is is to set the volume for you can hear from the PSTN side.
-4- Handset Gain is to set the volume send out to the other side's handset.
-5- PSTN-In Gain is to set the volume send out to the other side.
-6- When you finished the setting, please click the Submit button.
-7- If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

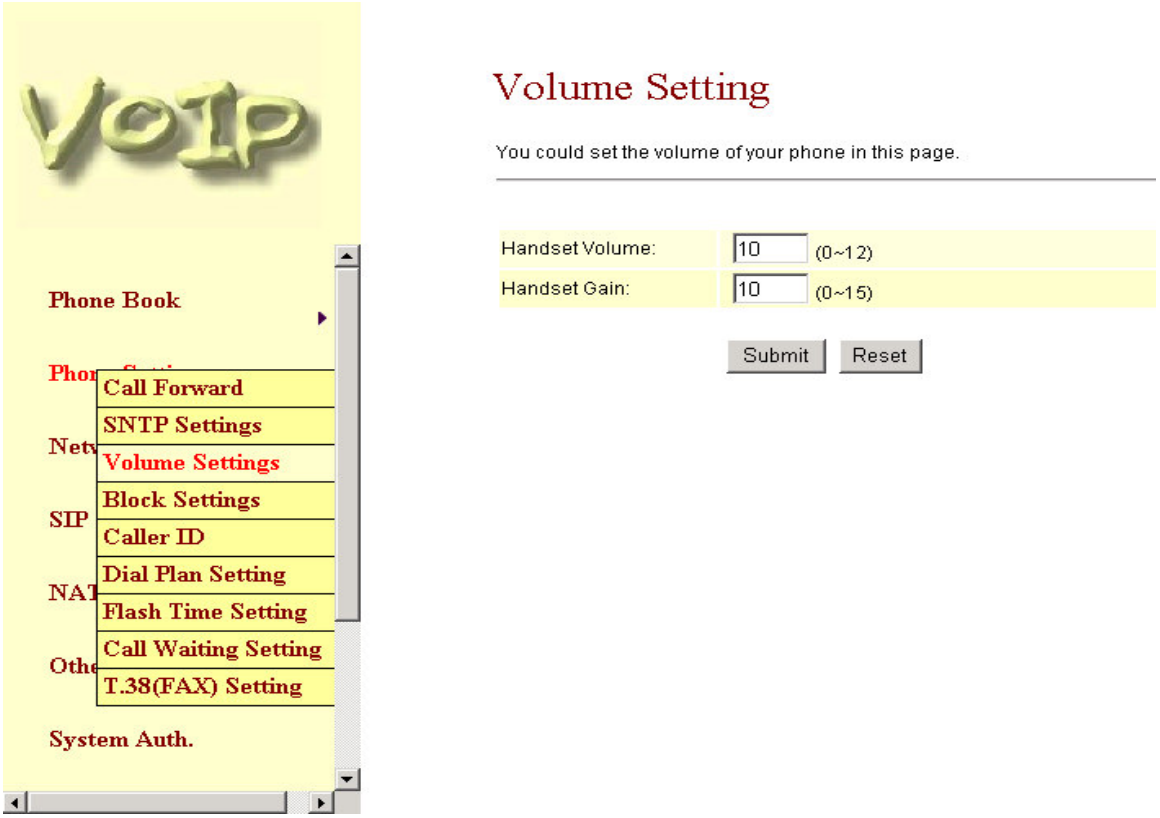

Figure 6. Volume Setting

3.4.5 Block Setting function: you can setup the Block Setting to keep the phone slience. You can choose Always Block or Block a period.

-1- Always Block: All incoming call will be blocked until disable this feature.
-2- Block Period: Set a time period and the phone will be blocked during the time period. If the "From" time is large than the "To" time, the Block time will from Day 1 to Day 2.
-3- When you finished the setting, please click the Submit button.
-4- If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

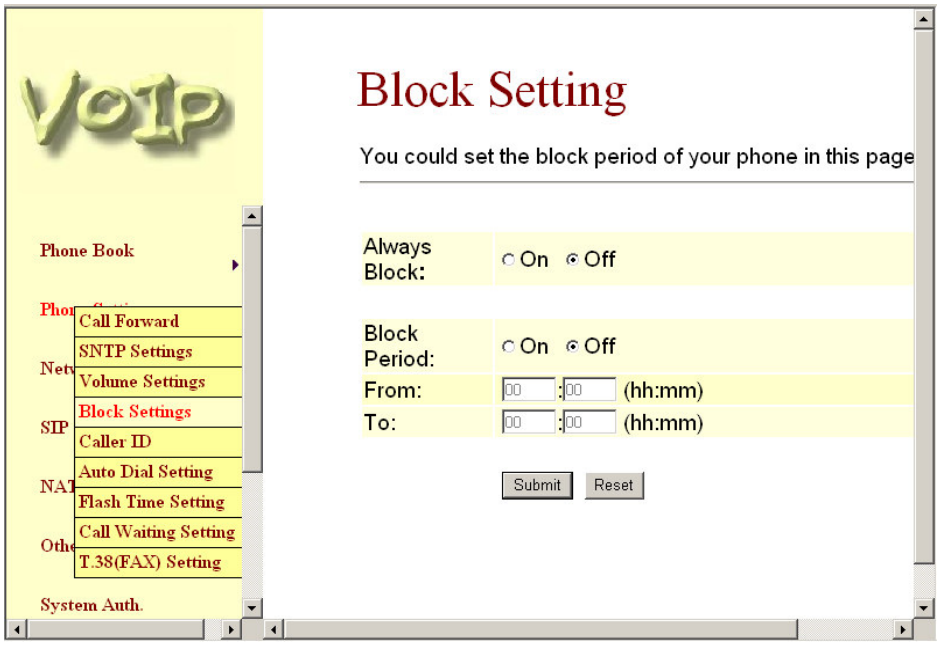

Figure 7. Block Setting

3.4.6 Caller ID function: you can set the device to show Caller ID in your PSTN Phone or IP Phone.

-1- There are four selection of Caller ID. You need to base on your environment to set the Caller ID function for FSK or DTMF. When you change the setting, please also double check the PTT seting in Others. You need to choose the correct country code then the Caller ID will be effect.

-2- When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

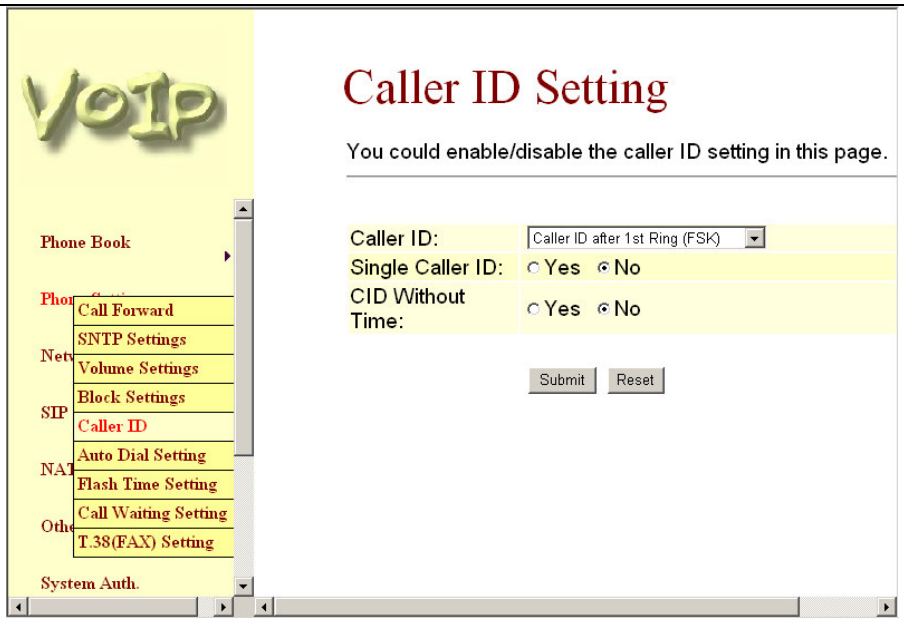

Figure 8. Caller ID Setting

3.4.7 Auto Dial Setting function: This function is when you input the phone number by the keypad but you don't need to press "#". After time out the system will dial directly. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

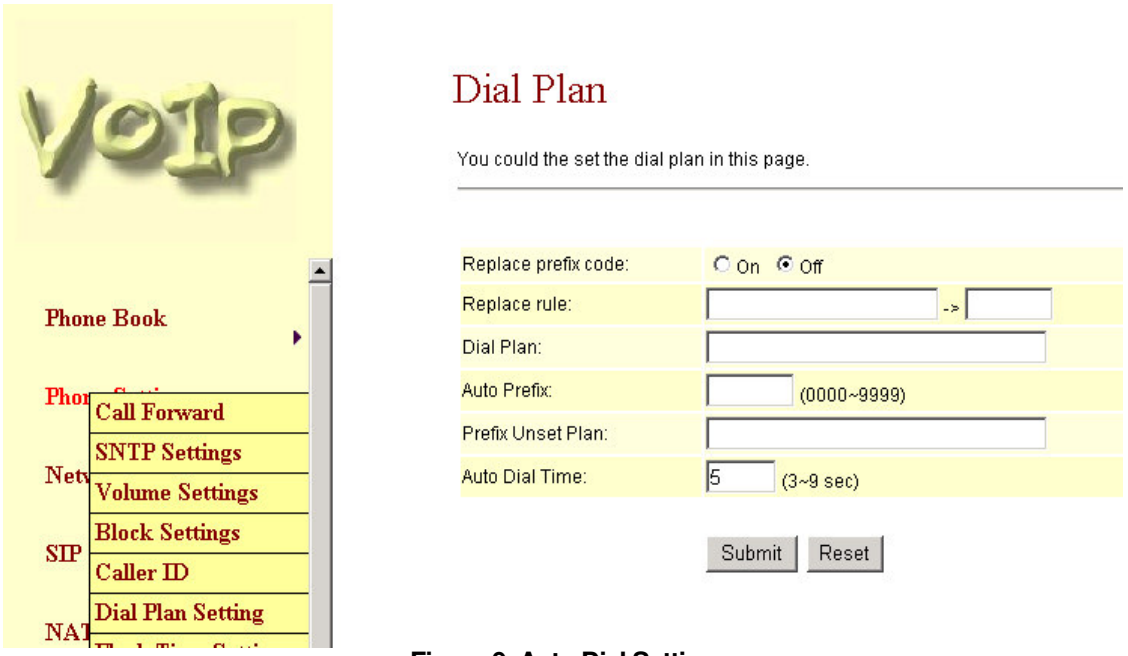

Figure 9. Auto Dial Setting

3.4.8 Flash Time Setting function: When you use the PSTN Phone and you need to press the Hook to do the Flash (Switch to the other phone line or HOLD), this function is for you to set the time you press the Hook to represent the Flash function. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

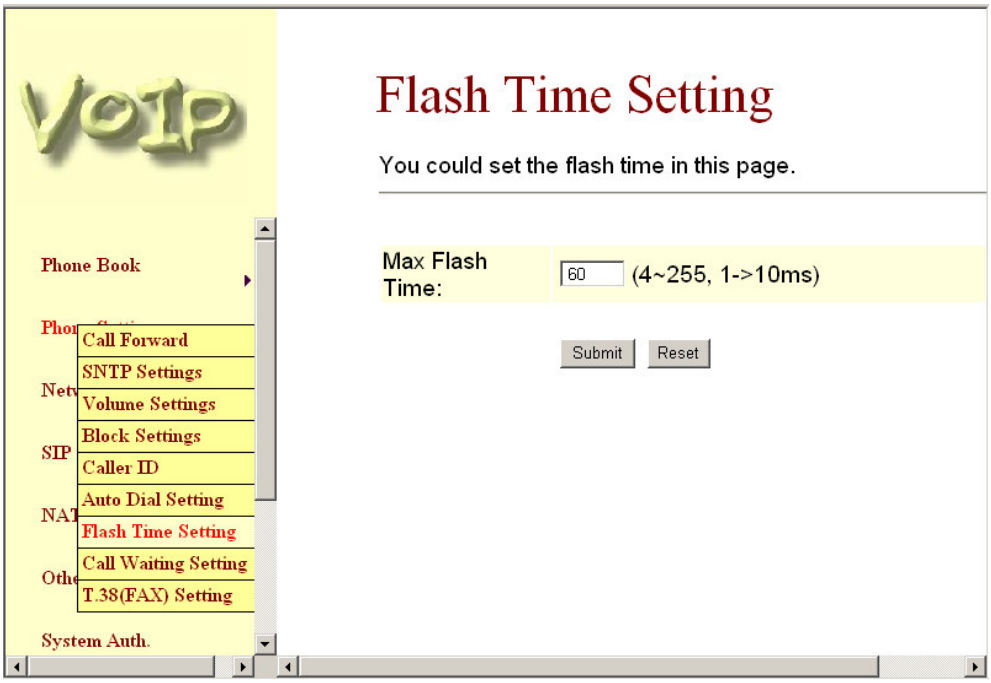

Figure 10. Flash Time Setting

3.4.9 Call Waiting Setting function: You can Enable/Disable the Call Waiting function, When you are talking with someone, there is a new incoming call, you will hear the call waiting tone. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

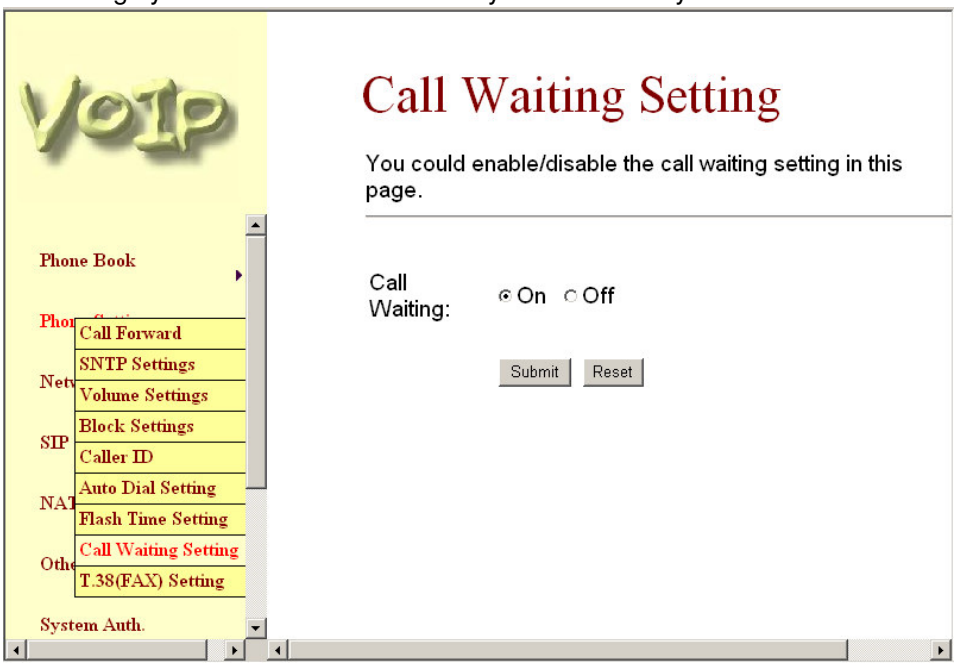

Figure 11. Call Waiting Setting

3.4.10 T.38 Setting function: You can Enable/Disable the T.38 function. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the

Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

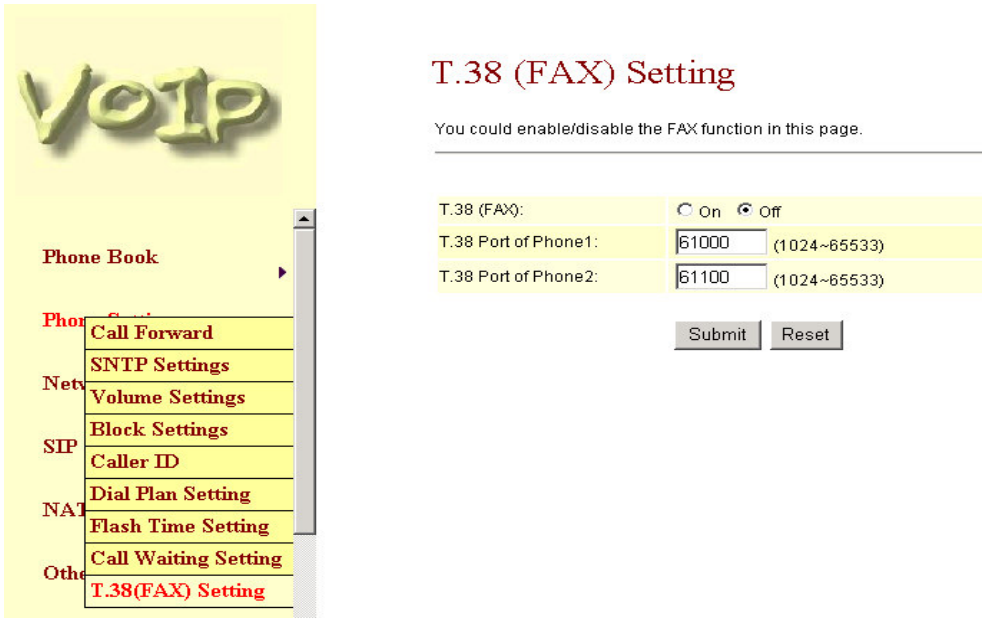

Figure 12. T.38 (FAX) Setting

3.5 Network

3.5.1 In Network you can check the Network status, WAN setting,LAN setting,DDNS settings and VLAN Settings.

3.5.2 Network Status: You can check the current Network setting in this page.

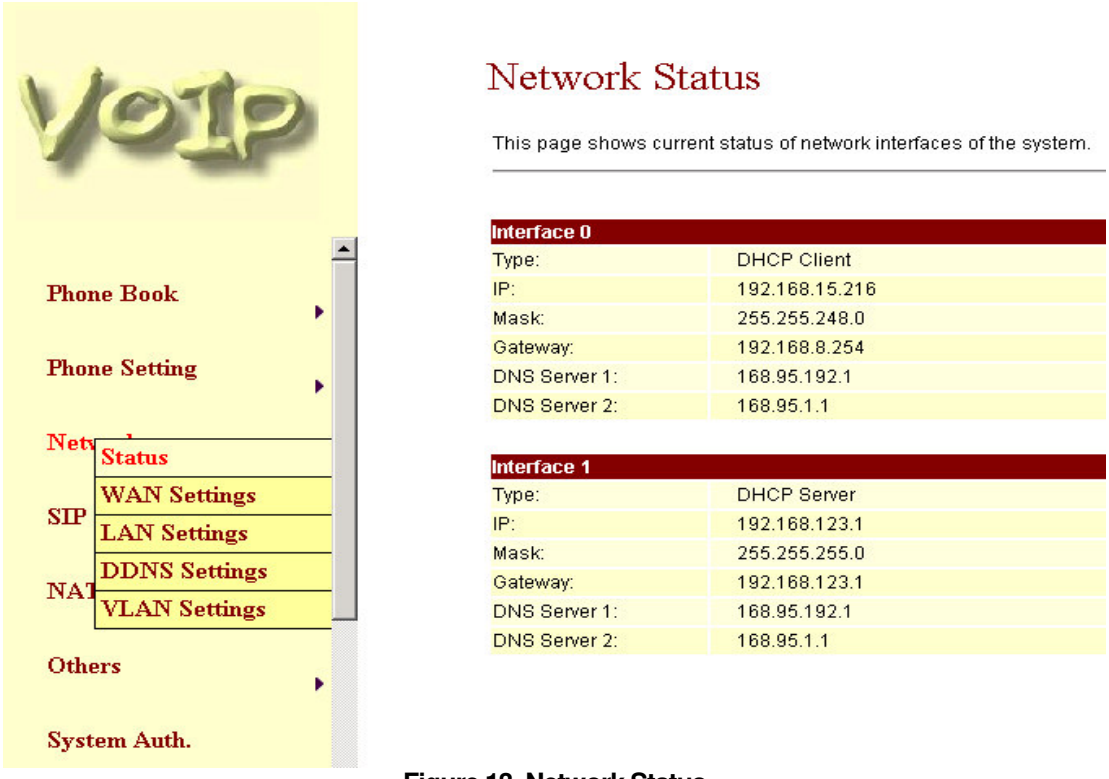

Figure 13. Network Status

3.5.3 WAN and LAN Settings:

.

-1- If you change the WAN port's setting to Fix IP Mode, then you have to make sure the IP address. Net Mask, Gateway, and DNS setting is suitable in your current network environment

-2- The WAN port is DHCP Client mode, You can change the setting to Fixed IP or PPPoE Mode.

-3- If you change the WAN port's setting to PPPoE Mode, you have to input a correct username/password to get the IP address from your Internet Service Provider..

-4- The LAN port's default IP address is 192.168.123.1, Net Mask is 255.255.255.0., and DHCP Server enabled. The start IP address if 150, end IP adress is 200. It is not necessary to change the LAN settings.

-5- You can connect your PC to the LAN port, set your PC as DHCP Client mode, then you can get IP addreess from the TA.

-6- When you finished the setting, please click the Submit button.

-7- If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

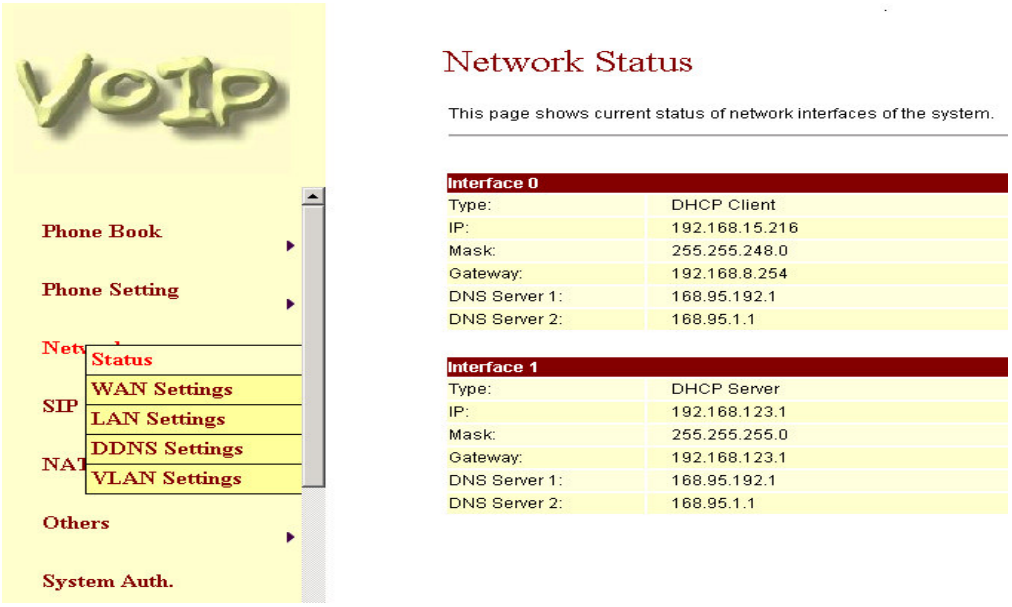

Figure 14. Network Settings

Bridge Setting: If you don't want to use the NAT Mode, then you can set the network setting in this page.

-8- The TCP/IP Configuration item is to setup the LAN port's network environment. You may refer to your current network environment to configure the VoIP Phone properly.

-9- If you change the LAN port's setting to Fix IP Mode, then you have to make sure the IP address. Net Mask, Gateway, and DNS setting is suitable in your current network environment.

-10- If you change the LAN port's setting to DHCP Client Mode, then you have to make sure in your current network environment has a DHCP server, then the TA will get the IP address from the DHCP Server.

-11- If you change the LAN port's setting to PPPoE Mode, you have to input a correct username/password to get the IP address from your Internet Service Provider.

-12- If you set the Bridge On, then the two Fast Ethernet ports will be transparent. Usually, we suggest you set the Bridge Mode is Enable, it will easy for you to connect any one of the port to the IP Network.

-13- When you finished the setting, please click the Submit button.

-14- If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

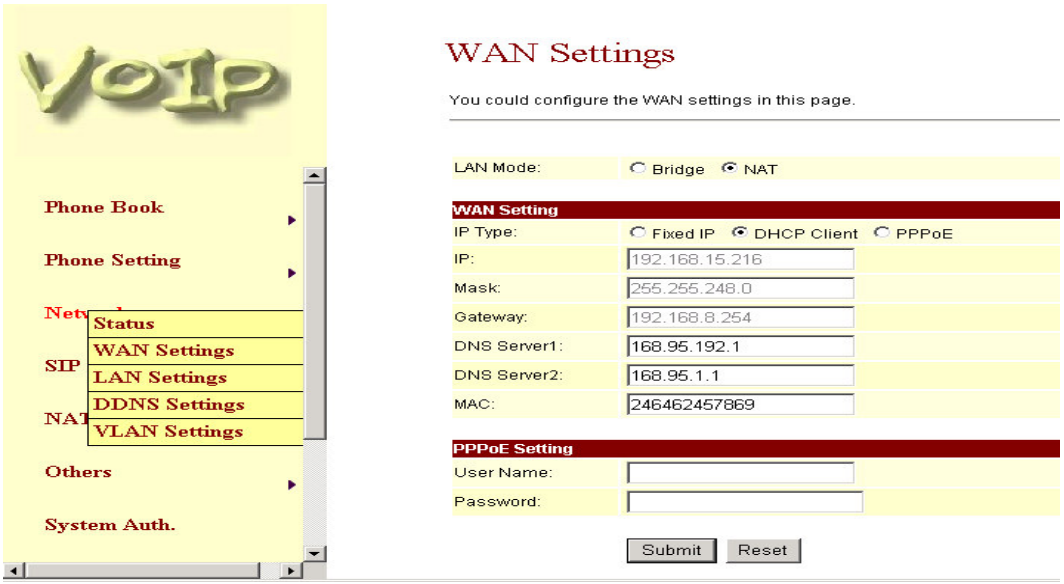

Figure 155. WAN Settings

3.5.4 DDNS Setting: You can configure the DDNS setting in this page. You need to have the DDNS account and input the informations properly. You can have a DDNS account with a public IP address then others can call you via the DDNS account. But now most of the VoIP applications are work with a SIP Proxy Server. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

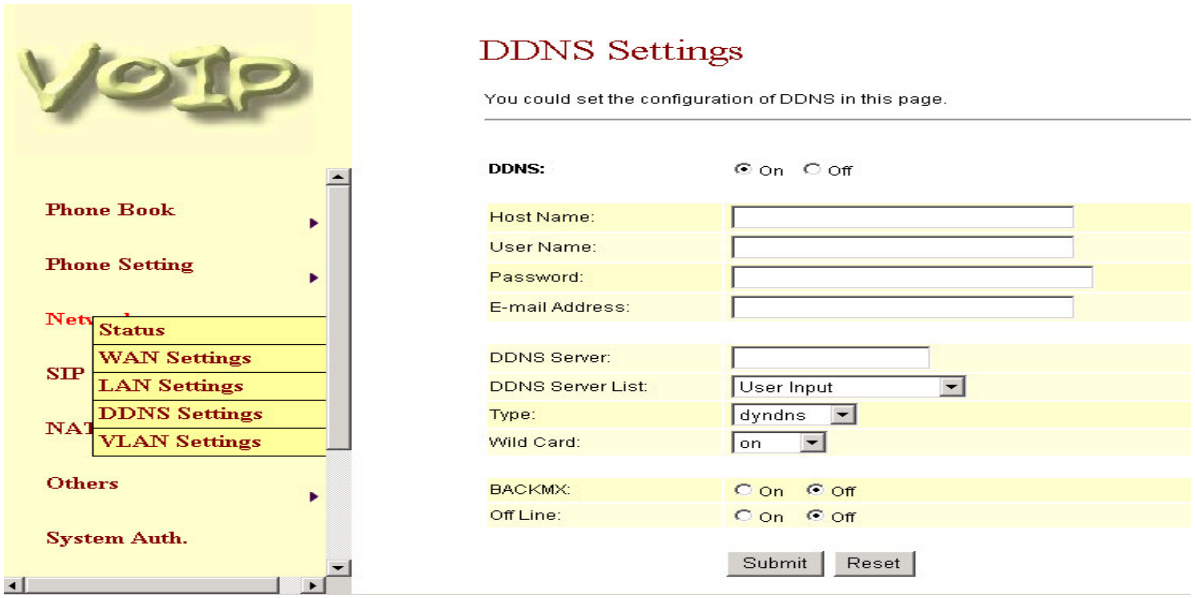

Figure 16. DDNS Setting

3.5.5 VLAN Setting: You can set the VLAN setting in this page. There are two parts in this page. First one is to set the packets related to the TA, and the second parts is if you use the VLAN setting in the NAT Mode.

-1- There are two kind of destination packets will come from the TA's WAN port, one kind of packets will go to the TA, the other will go through the LAN port to the PC.

-2- VLAN Packets: if you enable the first VLAN Packets and set the VID, User Priority, and CFI, then all the incoming packets will be check with the IP Address and the VID.

-3- VID: You can follow your service provider to set your VID.

-4- User Priority: Defines user priority, giving eight (2^3) priority levels. IEEE 802.1P defines the operation for these 3 user priority bits. Usually this will be defined by your service provider.

-5- CFI: Canonical Format Indicator is always set to zero for Ethernet switches. CFI is used for compatibility reason between Ethernet type network and Token Ring type network. If a frame received at an Ethernet port has a CFI set to 1, then that frame should not be forwarded as it is to an untagged port.

-6- When you enable the first VLAN Packets and set the VID, User Priority, and CFI, then all the incoming packets with the TA's IP address and the same VID will be accept by the TA. If the incoming packets with the TA's IP address but the different VID then the packets will be discard by the TA. The Other incoming packets with different IP address will go through the LAN port to the PC.

-7- NAT VLAN Setting: When you set your device in NAT mode, the TA can help you to filter the wrong incoming packets. You can separate the other device connectd behind the TA into 4 VLAN group. You can set different VID for these 4 groups. When the incoming packets go through the TA's WAN port then the TA will check the VID, if the packets is not going to the TA(with the TA's IP address and the correct VID), and the VID is not these four VID you set, then the packets will be discard by the TA.

-8- If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

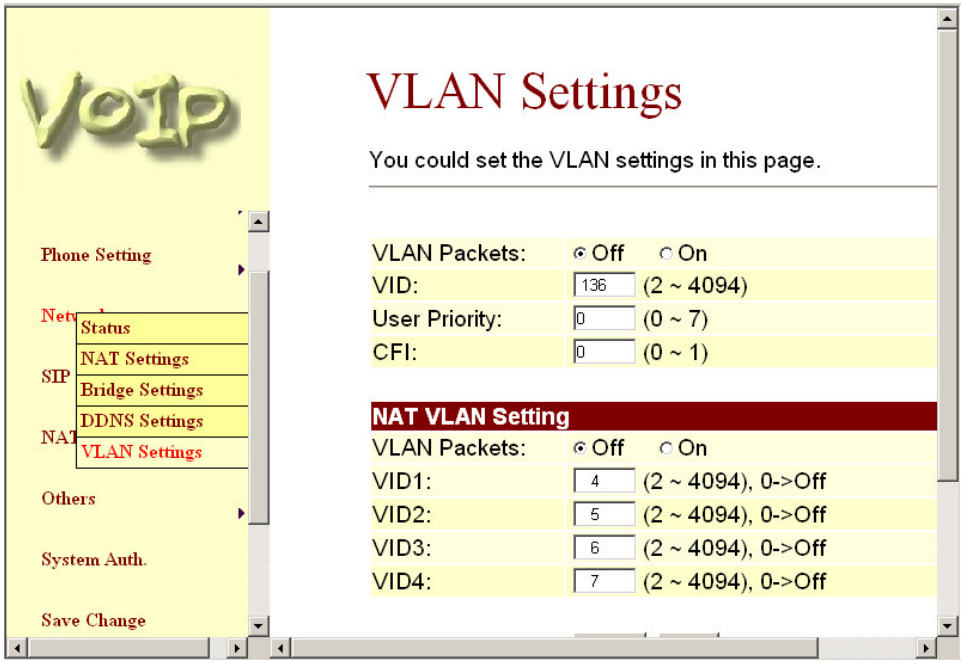

Figure 17. VLAN Setting

3.6 SIP Settings

3.6.1 In SIP Settings you can setup the Service Domain, Port Settngs, Codec Settings, RTP Setting, RPort Setting and Other Settings. If the VoIP service is provided by ISP, you need to

setup the related informations correctly then you can register to the SIP Proxy Server correctly.

3.6.2 I In Service Domain Function you need to input the account and the related informations in this page, please refer to your ISP provider. You can register three SIP account in the TA. You can dial the VoIP phone to your friends via first enable SIP account and receive the phone from these three SIP accounts. For the second phone you can use the same way to register.

-1- First you need click Active to enable the Service Domain, then you can input the following items:

(1-1) Display Name: you can input the name you want to display.
(1-2) User Name: you need to input the User Name get from your ISP.
(1-3) Register Name: you need to input the Register Name get from your ISP.
(1-4) Register Password: you need to input the Register Password get from your ISP.
(1-5) Domain Server: you need to input the Domain Server get from your ISP.
(1-6) Proxy Server: you need to input the Proxy Server get from your ISP.
(1-7) Outbound Proxy: you need to input the Outbound Proxy get from your ISP. If your ISP does not provide the information, then you can skip this item.
(1-8) Register Period: you need to input the Register Period get from your ISP. This is count in minute.
(1-9) You can see the Register Status in the Status item. If the item shows "Registered", then your TA is registered to the ISP, you can make a phone call direcly.
(1-10) If you have more than one SIP account, you can following the steps to register to the other ISP.
(1-11) When you finished the setting, please click the Submit button.
(1-12) If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

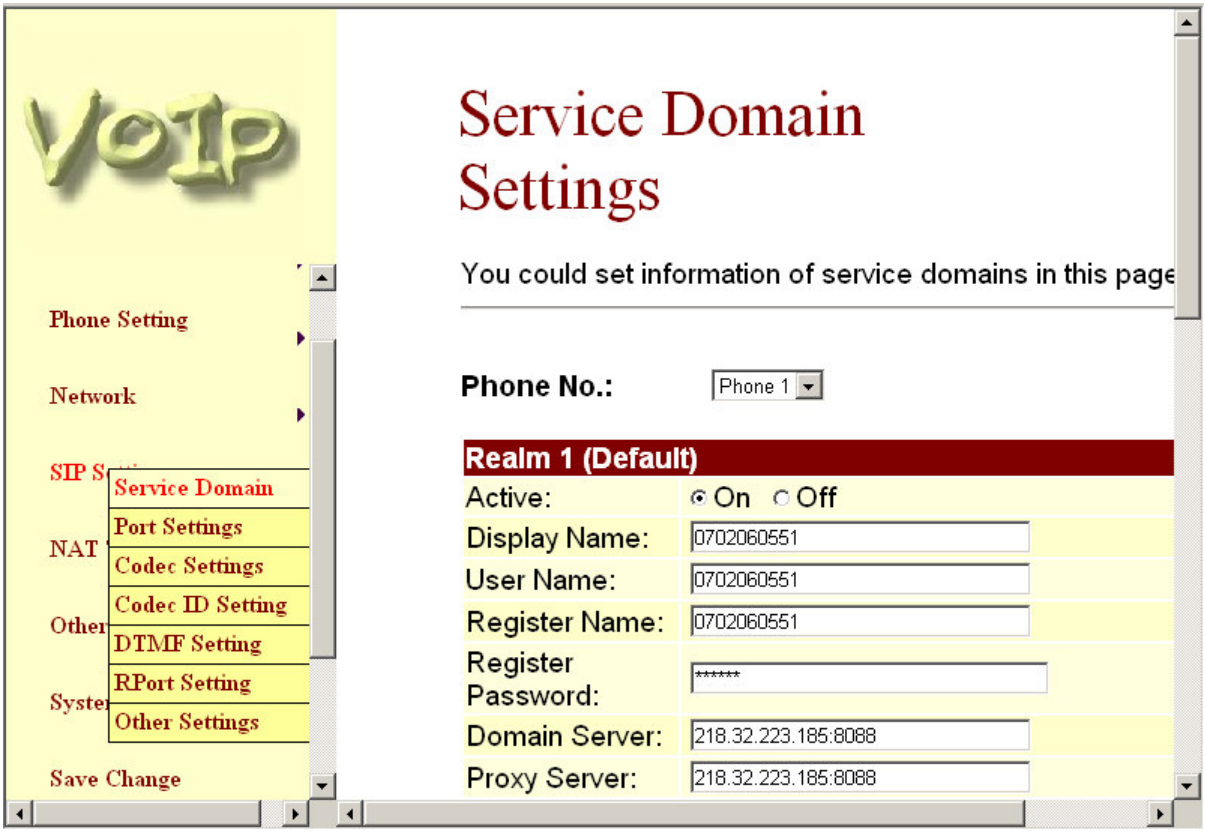

Figure 18. Service Domain Setting

3.6.3 Port Settings: you can setup the SIP and RTP port number in this page. Each ISP provider will have different SIP/RTPport setting, please refer to the ISP to setup the port number correctly. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

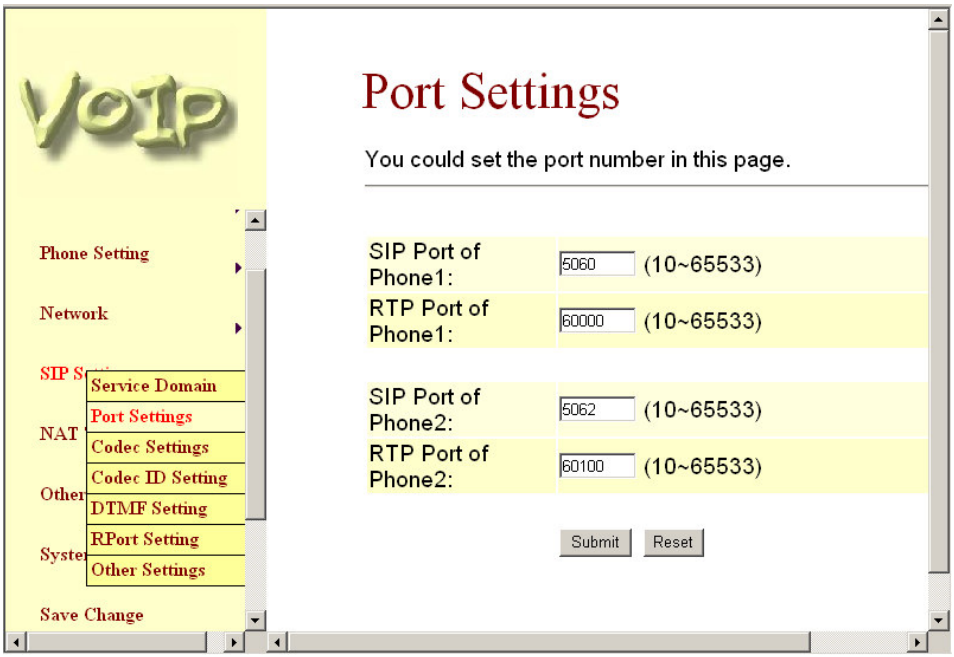

Figure 19. Port Setting

3.6.4 Codec Settings: you can setup the Codec priority, RTP packet length, and VAD function in this page. You need to follow the ISP suggestion to setup these items. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

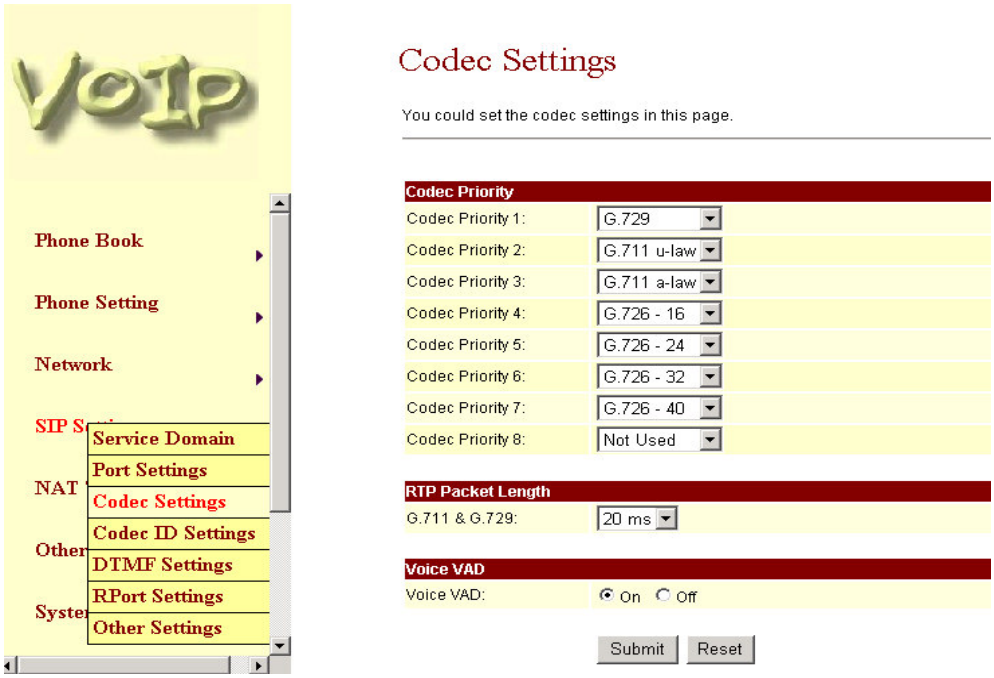

Figure 20. Codec Setting

3.6.5 Codec ID Setting: Sometimes 2 VoIP device with different Codec ID will cause the interopability issue. If you are talking with others got some problems, you may ask the other one what kind of Codec ID he use, then you can change your Codec ID. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

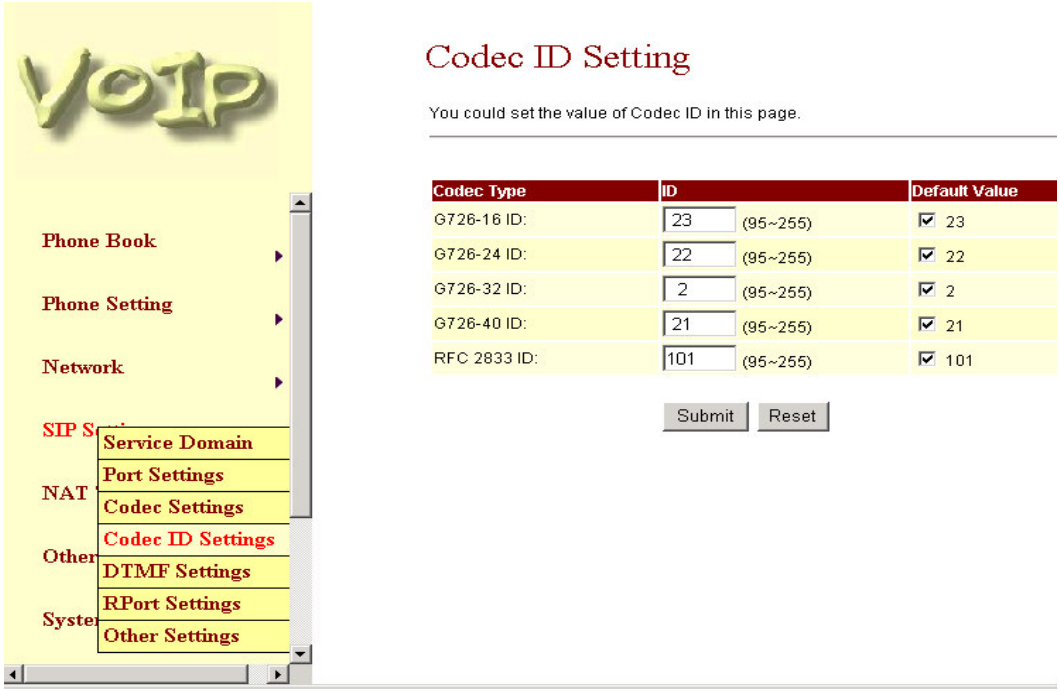

Figure 21. Codec ID Setting

3.6.6 DTMF Setting: you can setup the RFC2833 Out-Band DTMF, Inband DTMF and Send DTMF SIP Info in this page. To change this setting, please following your ISP information. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

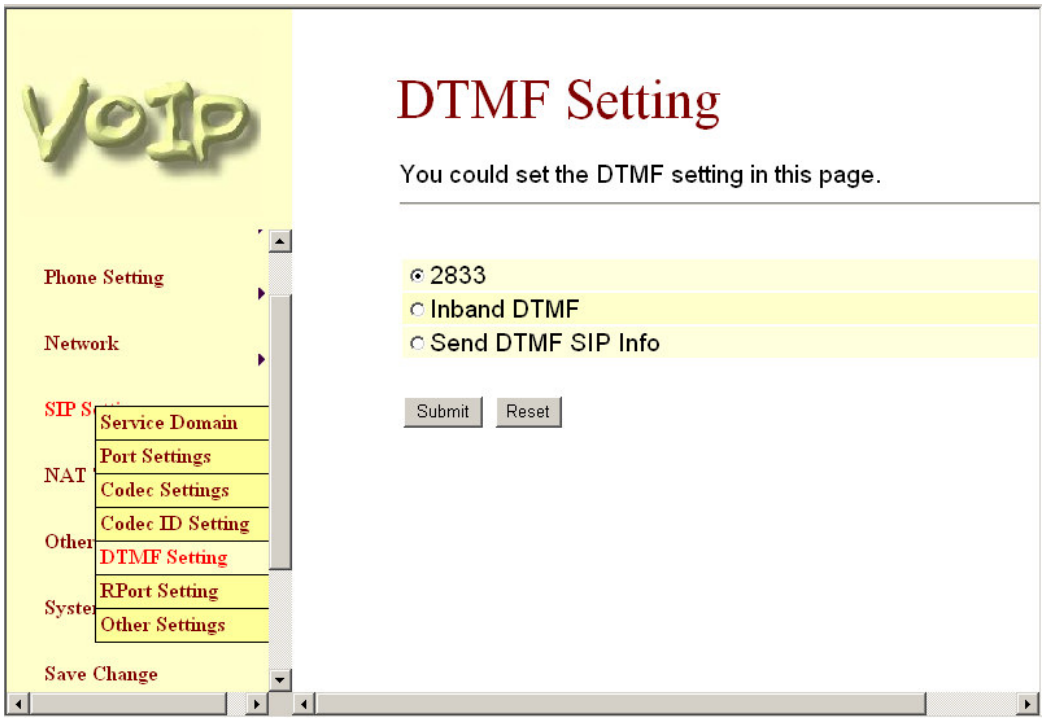

Figure 22. DTMF Setting

3.6.7 RPort Function: you can setup the RPort Enable/Disable in this page. To change this setting, please following your ISP information. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

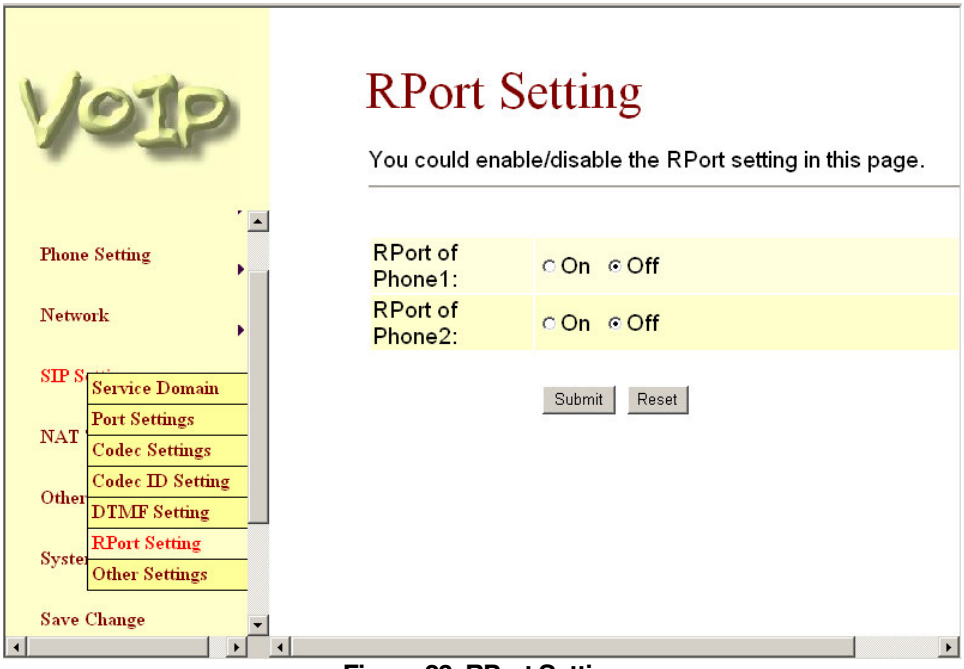

Figure 23. RPort Setting

3.6.8 Other Settings: you can setup the Hold by RFC, Voice/SIP QoS and SIP expire time in this page. To change these settings please following your ISP information. When you finished the setting, please click the Submit button. The QoS setting is to set the voice packets' priority. If you set the value higher than 0, then the voice packets will get the higher priority to the Internet. But the QoS function still need to cooperate with the others Internet devices. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

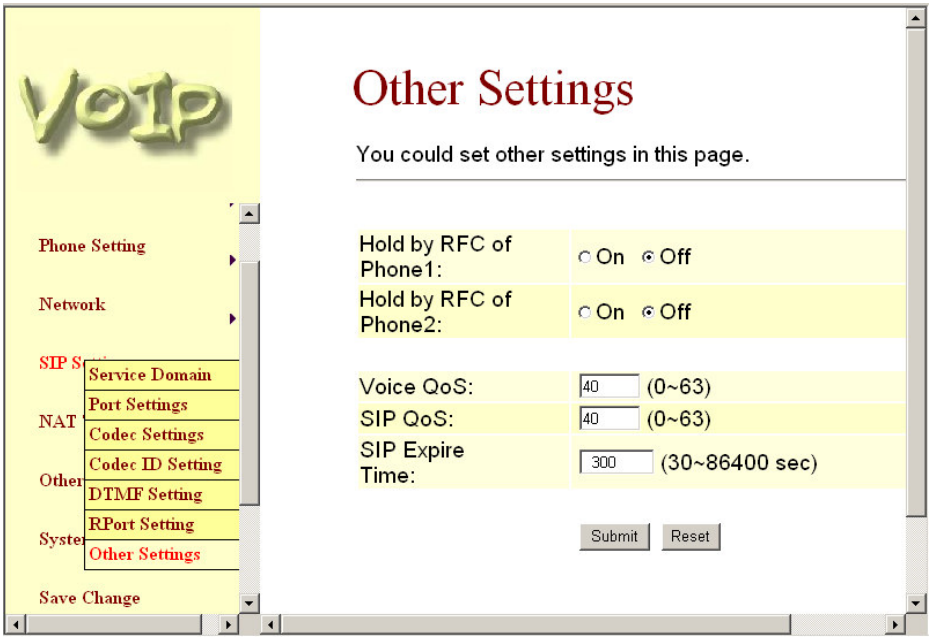

Figure 24. Other Setting

3.7 NAT Trans.

3.7.1 In NAT Trans. you can setup STUN function. These functions can help your ATA working properly behind NAT.

3.7.2 STUN Setting: you can setup the STUN Enable/Disable and STUN Server IP address in this page. This function can help your TA working properly behind NAT. To change these settings please following your ISP information. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

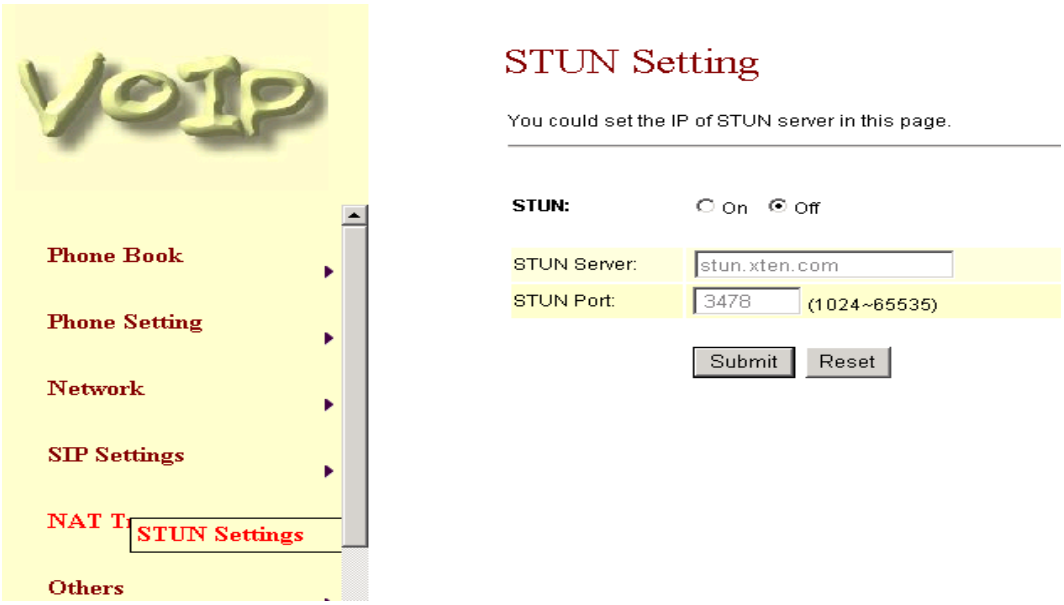

Figure 205. STUN Setting

3.8 Others

3.8.1 In Others you can setup Auto Config, PTT Setting and ICMP Setting function. The function can configure your VoIP Phone automatically.

3.8.2 Auto Config: you can setup the Auto Configuration Enable/Disable and auto configuration by FTP or TFTP. You need to select the way to do the Auto Configurationand set the Server IP address in this page. This function can automatically download the configure file to setup your TA.

3.8.3 When you finished the setting, please click the Submit button.

3.8.4 If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

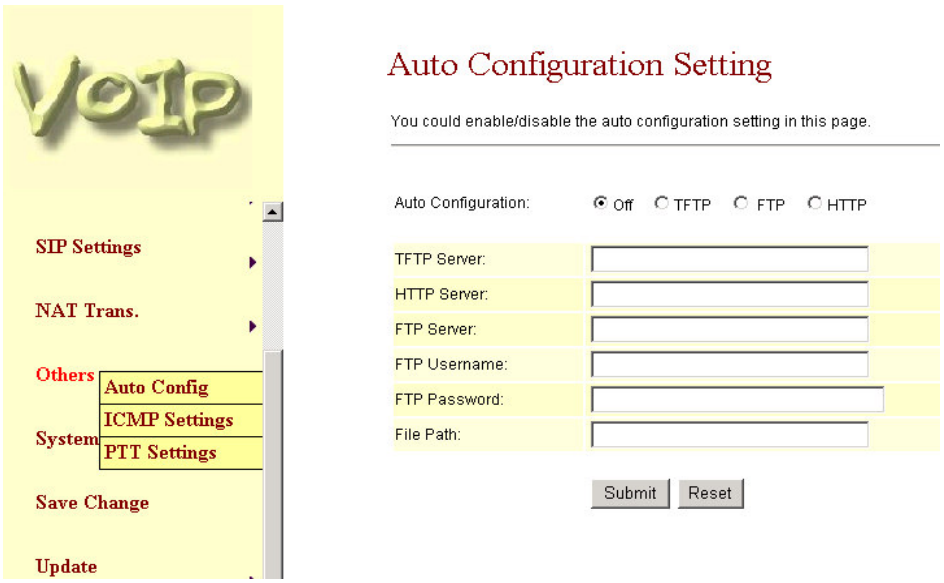

Figure 216. Auto Configuration Setting

3.8.5 ICMP Setting: you can setup the ICMP echo Enable/Disable in this page. This function can disable echo when someone ping this device, it can avoid haker try to attack the device.

When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

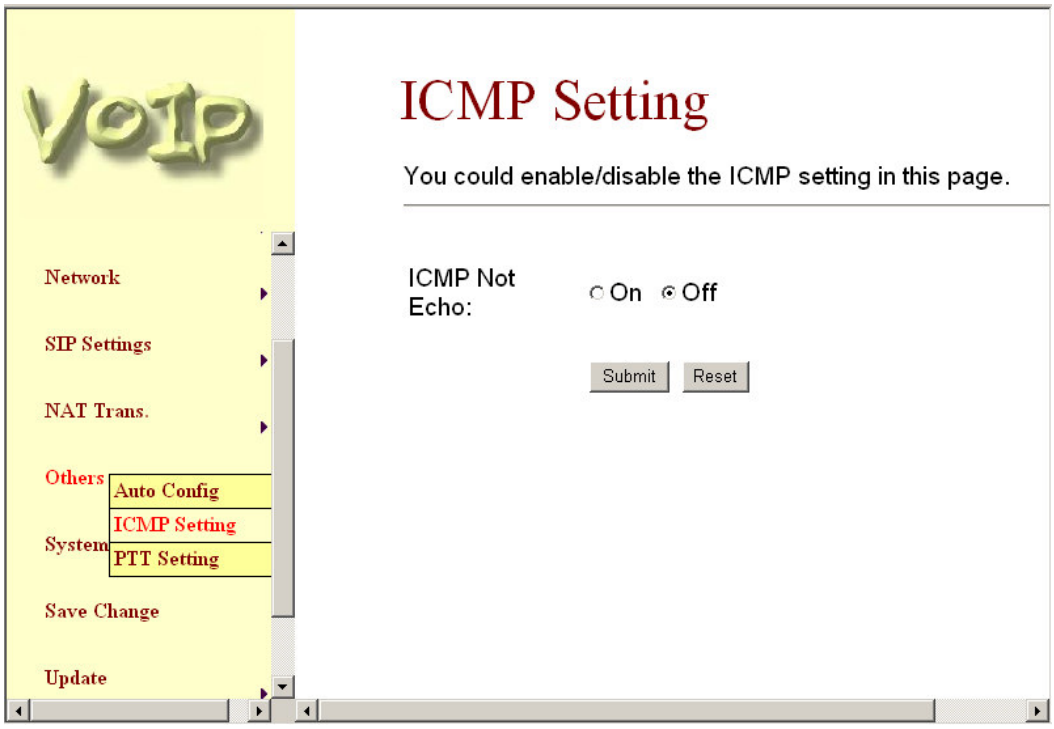

Figure 228. ICMP Setting

3.8.6 PTT Setting: you can setup the PTT in this page. When you are using different country's PSTN Phone, you have to set the country's setting to meet the requirement. When you finished the setting, please click the Submit button. (For ATA-171P only)

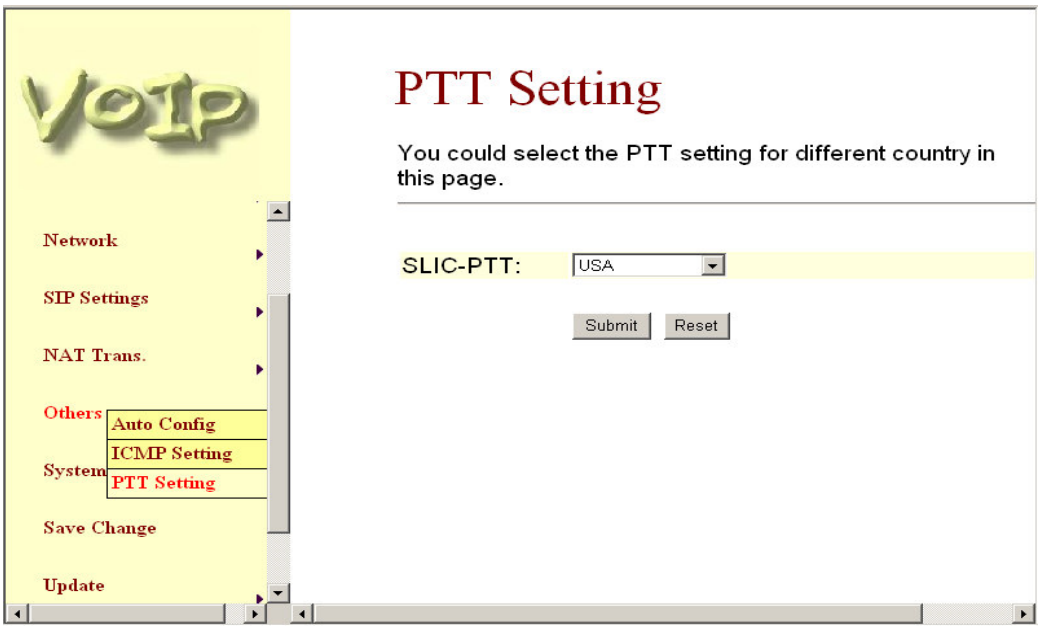

Figure 239. PTT Setting

3.9 System Auth.

3.9.1 In System Authority you can change your login name and password. When you finished the setting, please click the Submit button. If there is nothing need to change, please click the Save Change Item in the left side, then click the Save button. The change you made will save into the system and the system will Reboot automatically.

Figure 30. System Authority

3.10 Save Change

3.10.1 In Save Change you can save the changes you have done. If you want to use new setting in the ATA, You have to click the Save button. After you click the Save button, the ATA will automatically restart and the new setting will effect.

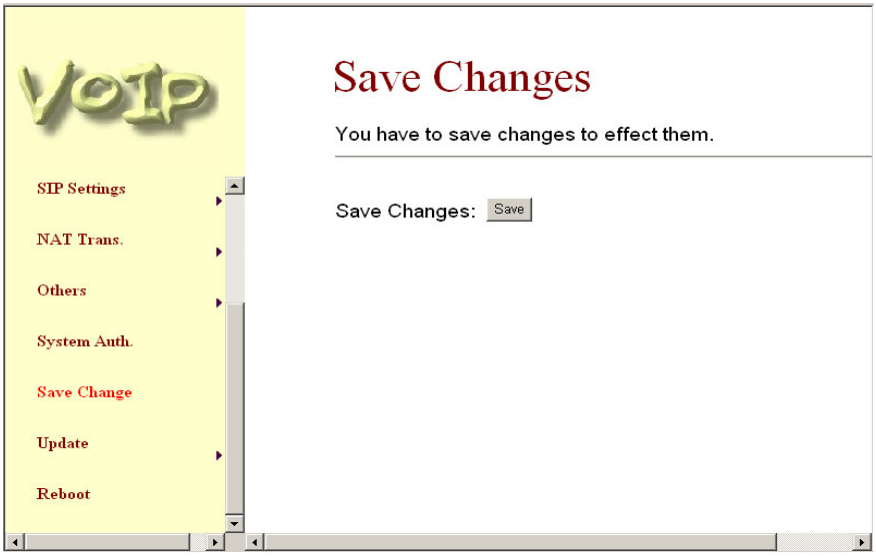

Figure 31. Save Change

3.11 Update Rom firmware:

3.11.1 In Update you can update the ATA's firmware to the new one or do the factory reset to let the ATA back to default setting.

3.11.2 In New Firmware function you can update new firmware via HTTP in this page. You can ugrade the firmware by the following steps:

-1- Select the firmware code type, ROM code.

-2- Click the "Browse" button in the right side of the File Location or you can type the correct path and the filename in File Location blank.

-3- Select the correct file you want to download to the ATA then click the Update button.

-4- After finished the update firmware process, the system will Reboot automatically.

-5- This update page is special webpage you must add "update.htm" in you IP address. http://xxx.xxx.xxx.xxx:9999/update.htm.

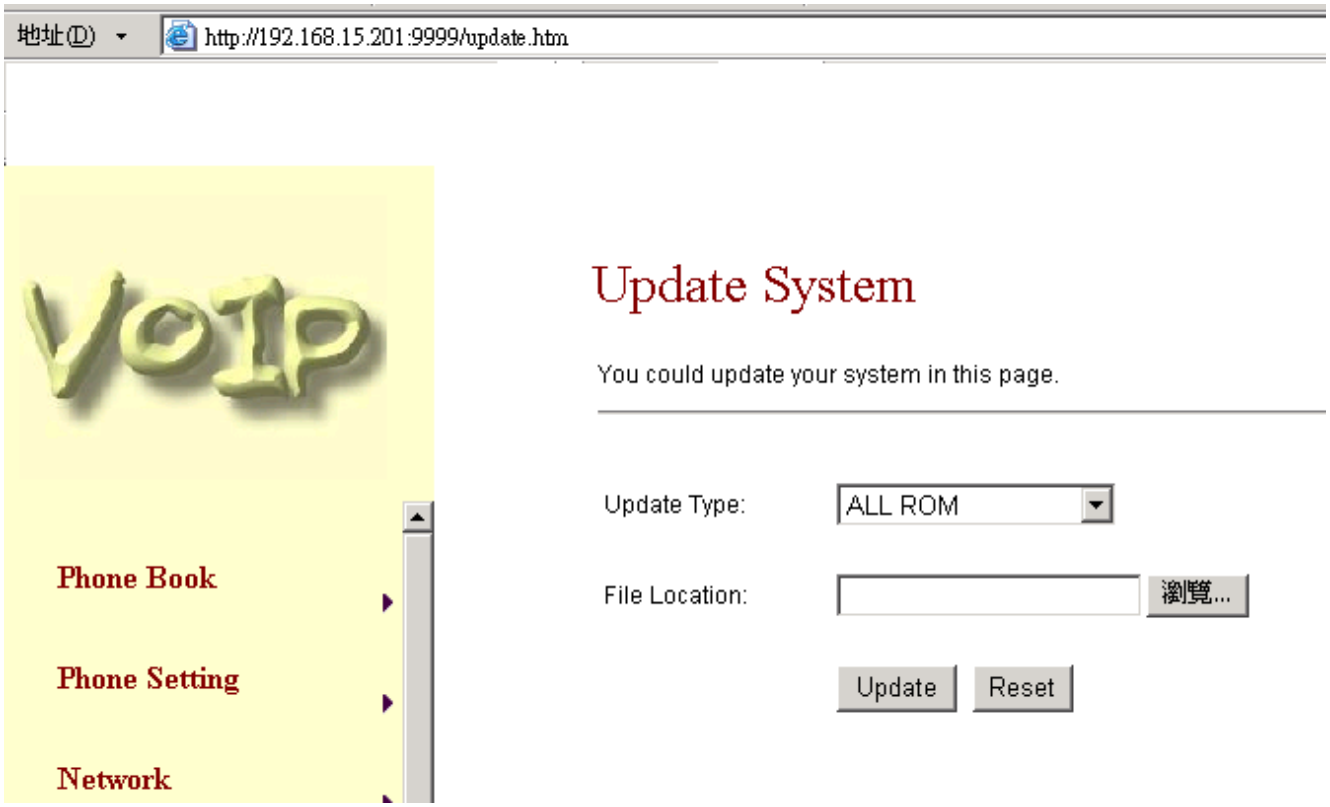

Figure 32. Update Firmware

3.11.3 In Default Setting you can restore the TA to factory default in this page. You can just click the Restore button, then the TA will restore to default and automatically restart again. The Default Setting will be NAT Mode, WAN port is DHCP Client Mode, LAN port is Fixed IP Mode and the IP Address is 192.168.123.1.

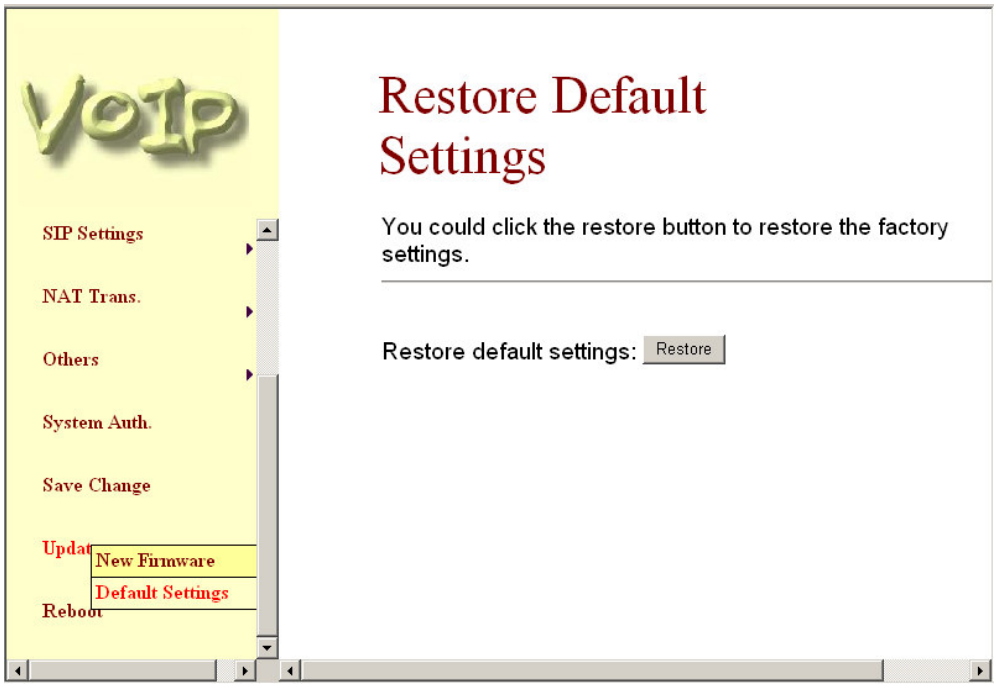

Figure 33. Restore Default Setting

3.12 Reboot

3.12.1 Reboot function you can restart the ATA. If you want to restart the ATA, you can just click the Reboot button, then the ATA will automatically.

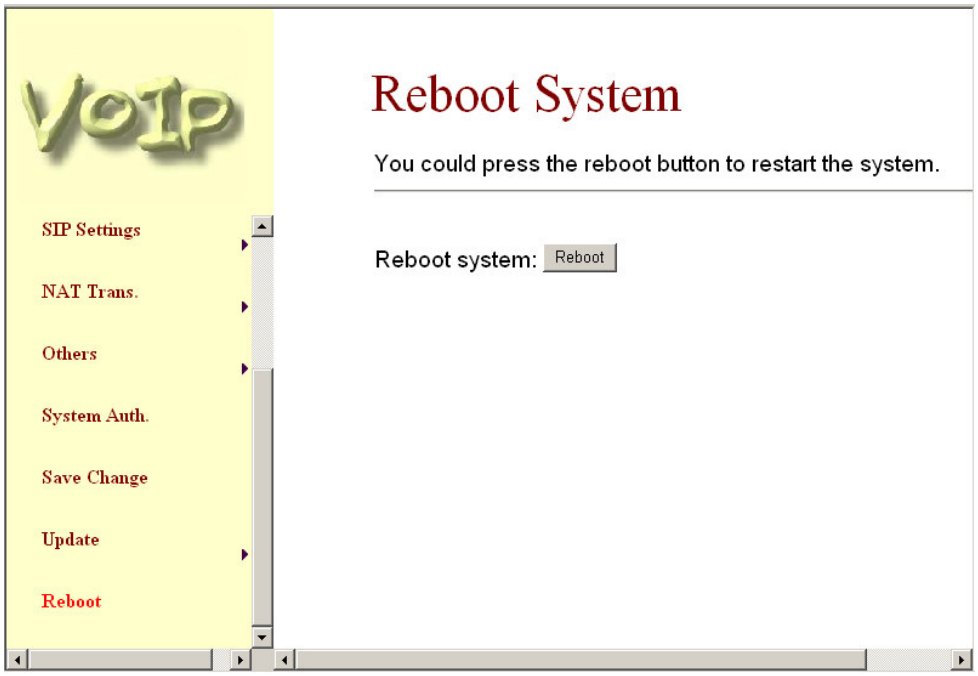

Figure 34. Reboot System

4 Setup the ATA by using Console (Hyper Terminal)

4.1 Configure the COM port

First Open the hyper terminal window, select the connection by the COM port, and then click the "Setting" button.

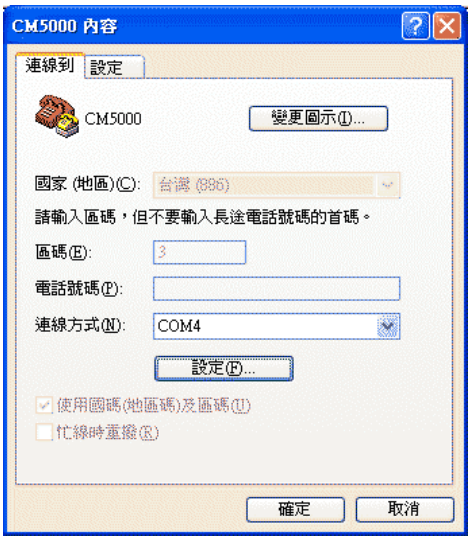

Figure 24. Console Setting-1

Set the COM port's setting as following setting. Then click OK.

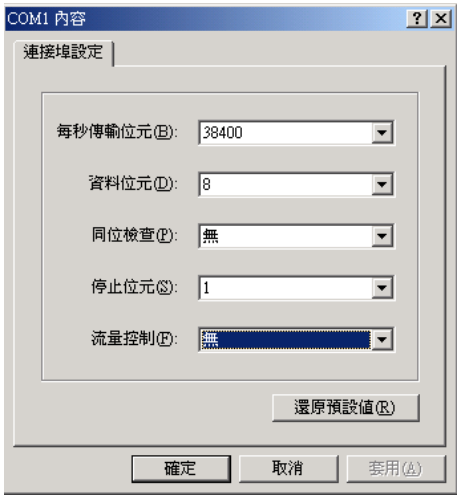

Figure 25. Console Setting-2

4.2 Login into the ATA

After finished the setting, click the "Connect" button (looks like a telephone icon). Then the hyper terminal is ready to connect to the ATA. Press "Enter" and the hyper terminal will show the "Login: ". Input "root" and press the "Enter" button. Then hyper terminal will show the "Password: ". Input "test" and press the "Enter" button. Now you already login the ATA. Please follow the CLI command list to configure the ATA with proper instruction and value.

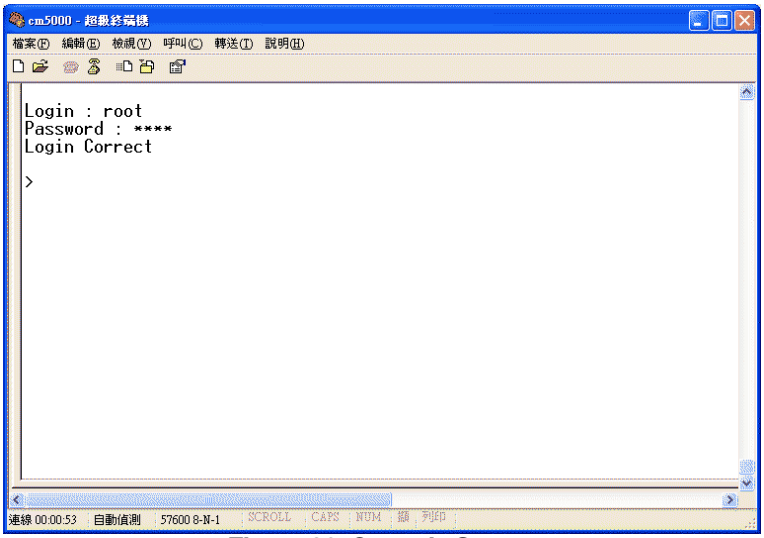

Figure 26. Console Screen

4.3 Using CLI command to configure the ATA

4.3.1 CLI command list as below:

Index	Command	Description
1	?	Show CLI Command
2	arp	ARP Configuration
3	ipconfig	Interface Configuration
4	save	Save to flash
5	reboot	Reboot
6	exit	Exit
7	debugmode	Enter Debug Mode
8	update	Update Flash Code/RAM
9	auth	Change User Name and Password
10	nat	NAT Configuration
11	dns	DNS Configuration
12	ping	ping [-lN] [IP-addr|host-name]
13	sip	SIP Configuartion
14	ddns	DDNS Configuartion
15	sntp	SNTP Configuartion
16	vlan	VLAN Configuartion
17	time	Get System Time
18	mactab	Show MAC Learning Table
19	dump	Read/Write Memory
20	book	Edit phone book
21	reload	Reload Factory Setting
22	watchdog	WatchDog Function
23	phone	Phone Setting
24	weblogo	Change Web's logo
25	dsp	Show dsp type
26	addport	Add Nat Port Mapping
27	cid	Select slic Cid
28	slic	read or write slic registers
29	ver	Firmware Version

-1- "?" function is to show CLI command list in the screen.

-2- arp function

Index	Command	Description
1	?	Show 'arp' Option
2	-a	Show ARP Table
3	-d	Delete ARP Table
4	-s	Set Static ARP Table
5	(null)	Show ARP Table

-3- ipconfig function

Index	Command	Description
1	?	Show 'ipconfig' Option
2	-if0	Interface 0
3	-if1	Interface 1
4	-if2	Interface 2
5	-h	Set Host Name
6	-a	Set ARP Cache Expire
7	-r	Restore Current Setting
8	(null)	Show IP Setting

(3-1) ipconfig –ifN function → N is 0, 1, 2

Index	Command	Description

1	?	Show 'ipconfig -ifN' Option
2	-t	Set Host Type
3	-m	Set MAC Address
4	-i	Set IP Address
5	-nm	Set Net Mask
6	-g	Set Gateway
7	-dns0	Set Primary DNS server
8	-dns1	Set Secondary DNS server
9	-dr	Set Default Route
10	-nat	Set NAT
11	on	Enable Interface
12	off	Disable Interface
13	-dhcps	DHCP Server Setting
14	-ddns	Set DDNS
15	-bridge	Set Bridge
16	-dev0	Set Device 0 Setting
17	-dev1	Set Device 1 Setting
18	-dev2	Set Device 2 Setting
19	(null)	Show Interface Setting

-4- save function

Index	Command	Description
1	?	Show 'save' Option
2	-book	Save phone book
3	-sys	Save system setting

-5- reboot function is to restart the system.

-6- exit function is to exit the CLI.

-7- debugmode function is to enter the debugmode.

-8- update function

Index	Command	Description
1	?	Show 'update' Option
2	-os	Update OSImage(IP filename)
3	-dsp	Update DSP Image(IP filename)
4	-all	Update All Image(IP filename)
5	-server	Update Server (IP filename length)
6	-pcm	PCM(IP filename)
	-alaw	alaw (IP filename)
	-ulaw	ulaw (IP filename)
	-g729	g729 (IP filename)
	-g726.16	g726.16 (IP filename)
	-g726.24	g726.24 (IP filename)
	-g726.32	g726.32 (IP filename)
	-g726.40	g726.40 (IP filename)

IP is the TFTP server's IP address, and the filename is the image you want to download into the system.

-9- auth function

Index	Command	Description
1	?	Show 'auth' Option
2	-admin	Change Administrator user name/password
3	-sys0	Change System user0 user name/password

4	-sys1	Change System user1 user name/password
5	-sys2	Change System user2 user name/password
6	-sys3	Change System user3 user name/password
7	-sys4	Change System user4 user name/password
8	-norm0	Change Normal user0 user name/password
9	-norm1	Change Normal user1 user name/password
10	-norm2	Change Normal user2 user name/password
11	-norm3	Change Normal user3 user name/password
12	-norm4	Change Normal user4 user name/password
13	-ppp	Change PPP user name/password
14	(null)	Show auth Setting

In each item includes

Index	Command	Description
1	?	Show 'auth' Option
2	-user	Change User Name.'auth -sys3 -user xxx '
3	-pass	Change Password. 'auth -sys3 -pass xxx xxx'
4	(null)	Show auth's System/PPP Setting

If you want to change the password, you need to type the password twice in the CLI.

-10- nat function

Index	Command	Description
1	?	Show 'nat' Option
2	-vs	Set 'nat -vs' Option
3	-dmz	Set 'nat -dmz' Option
4	(null)	Show NAT Setting

In DMZ item includes

Index	Command	Description
1	?	Show 'nat -dmz' Option
2	on	EnableDMZ
3	off	EnableDMZ
4	-ip	Set DMZ IP address
5	(null)	Show DMZ Setting

-11- dns function

Index	Command	Description
1	?	Show 'dns' Option
2	-q	DNS query. dns -q domain-name
3	(null)	Show DNS Table

-12- ping function

Index	Command	Description
1	?	Show 'ping' Option
2	-l	ping [-l N] [IP-addr|host-name]
3	(null)	ping [IP-addr|host-name]

-13- sip function

Index	Command	Description
1	?	Show 'sip' Option
2	-proxy0	sip -proxy0
3	-proxy1	sip -proxy1
4	-proxy2	sip -proxy2
5	-upnp	sip -upnp on/off/show
6	-exts	sip -exts sip upnp external-port
7	-extr	sip -extr rtp upnp external-port
8	-sipp	sip udp port
9	-rtpp	sip rtp port
10	-stun	sip -stun on/off
11	-rport	sip -rport on/off
12	-sserver	sip -sserver stun-server
13	-out	sip -out outbound-proxy
14	-dump	sip –dump
15	-log	sip -log on/off
16	-drtp	sip -drtp 0/1/2
17	-rtpnc	sip -rtpnc on/off
18	-wanip	sip –wanip
19	-nattype	sip –nattype
20	-hbyrfc	sip –hbyrfc
21	-dereg	sip -dereg
22	-restart	sip -restart
23	-jbt	sip -jitter buffer Threshold
24	(null)	Show SIP Setting

-14- ddns function

Index	Command	Description
1	?	Show 'ddns' Option
2	-type	Set DDNS Type
3	-host	Set Host Name
4	-wild	Set Wild Card Mode
5	-mx	Set Mail Exchanger
6	-backmx	Set Mail Exchanger Mode
7	-offline	Set Offline Mode
8	-user	Set Login User Name
9	-pass	Set Login Password
10	(null)	Show DDNS Setting

-15- sntp function

Index	Command	Description
1	?	Show 'sntp' Option
2	-on	Enable SNTP Client
3	-off	Disable SNTP Client
4	-ip1	Set SNTP Server1 IP
5	-ip2	Set SNTP Server2 IP
6	-mode	Set SNTP Client Mode
7	-zone	Set GMT Time Zone: [+|-][hour]:[min]
8	-adjust	Set Adjustment Time: [second]
9	(null)	Show SNTP Setting

-16- vlan function

Index	Command	Description
1	?	Show 'vlan' Option
2	-tx	Tx Vlan setting
3	-rx	Rx Vlan setting
4	(null)	Show Vlan Setting

-17- time function

Index	Command	Description
1	?	Show 'Time' Option
2	-t	Modify Time: hour:min:sec
3	-d	Modify date: year:mon:date
4	(null)	Show Data & Time

-18- mactab function is to show MAC learning table.

-19- dump function

Index	Command	Description
1	?	Show 'dump' Option
2	-r	dump -r XXXXxxxx
3	-w	dump -w XXXXxxxx XX

-20- book function

Index	Command	Description
1	?	Show 'book' Option
2	-a	Show answer list
3	-c	Show call list
4	-s	speed dial
5	-p	phone book

-21- reload function is to Reload Factory Setting, please make sure you want to do the factory reset.

-22- watchdog function

Index	Command	Description
1	?	Show 'WatchDog' Option
2	on	Enable WatchDog
3	off	Disable WatchDog
4	(null)	Show WatchDog Setting

-23- phone function

Index	Command	Description
1	?	Show 'phone' Option
2	-autoanswer	phone auto answer
3	-vol	Volume setting
4	-block	Block Incoming call
5	-ring	Set Melody Ringer
6	-forward	Auto-forward Incall to Phone[0-9] in Book
7	(null)	Show Phone Setting

-24- weblogo function

Index	Command	Description
1	?	Show 'weblogo' Option
2	-on	Vender Logo
3	-off	Default Logo
4	(null)	Show weblogo Setting

-25- dsp function is to show dsp code type.

-26- addport function is to add Nat Port Mapping

-27- cid function

Index	Command	Description
1	?	Show 'cid' Option
2	-off	Disable Slic Cid signal
3	-1	Tx FSK after 1st Ring
4	-2	Tx FSK before 1st Ring
5	-3	Tx DTMF before 1st Ring
6	-4	Tx FSK with Line reversal before 1st Ring
7	-5	Tx DTMF with Line reversal before 1st Ring
8	-time	FSK cid with time message
9	-single	Single type FSK CID
10	(null)	Show Cid Option

-28- slic function

Index	Command	Description
1	?	Show 'slic' Option
2	-ring	Issue Ring signal
3	-r	read slic addr
4	-w	write slic addr
5	-a	read all slic reg
6	(null)	Show slic register

-29- ver function is to show Firmware Version.

5 How to make a phone call

When your ATA is configured properly, you can make a phone call to your friend in the same Service provider.

If you want to make a phone call, you can dial the phone number and press "#" button to start to dial the phone number.

The ATA also provides some functions that list as below:

1. Call Waiting: When a new call is coming while you are talking, you can push the Flash button to switch to the new call. You can push the Flash button to switch between the two calls.
2. Call Hold: You can push the Hold key to hold the current call for a while, then push Hold key again to keep talking.
3. 3-way conference: If you want to make a 3-way conference call, you can make a phone call to the first phone number. After the call is established, push the Flash button then you can hear the Dial tone, then make a phone call to the second phone number. When the second call is established, press the Flash button again.